

“Phosphorus - A Necessary, But Often Overused Nutrient”

How much phosphorus is in your lawn, landscape or vegetable garden soil? Most of the soil test results that cross my desk show that excessive amounts of this nutrient are being used.

Phosphorus is one of the minerals that is necessary for plant growth and development. Though our native soils along the Gulf Coast contain very low levels at first, repeated applications of high phosphorus containing fertilizers can lead to an excessive buildup.

A number of soil tests show levels of phosphorus that are literally off of the scale. We don't know how high some of these levels are, but we do know what can happen as a result. Extremely high phosphorus chemically binds some minor elements in the soil. Iron is especially vulnerable, as are several others.

I have used the “overdose of vitamins in humans” analogy when attempting to discuss this topic. High phosphorus levels in our sandy soils throws other nutrient availability and uptake out of kilter, similar to what happens in human nutrition when too much of a particular vitamin or mineral is taken.

Look on the fertilizer label to determine the relative amount of this nutrient and choose a product that is relatively low in phosphorus, which is listed as the middle number. For example, a 10 - 15 - 10 fertilizer would be considered too high in this mineral. Since it contains 15 per cent phosphorus, to only 10 per cent nitrogen (the first number) and 10 per cent potassium (the last number), there is danger of an eventual buildup in the soil.

Most current Extension fertilization recommendations for lawns and landscapes include products containing low phosphorus. When purchasing, look for ratios of approximately 3 -1 -2 or 3 -1 - 3. These are ratios, not the actual fertilizer analysis. Examples of a fertilizer analysis with such ratios are 12 - 4 - 8 or 15 - 5 - 15.

The fertilizer's relative phosphorus level is important regardless of which form is purchased. There are low phosphorus fertilizers available in products that are granulated, pelletized, coated, soluble and liquid. All of these forms can also be found that contain high levels of phosphorus, so read labels carefully and make an informed choice.

The accumulation of excessive phosphorus in the soil usually only occurs after several seasons of using fertilizers containing relatively high levels of this

nutrient. It builds up because phosphorus is not very soluble or mobile in the soil, so any that is not used by plants remains indefinitely.

Watch for some trends in the near future that are related to this subject. Fertilizer manufacturers are responding by formulating products that more closely match the needs of our unique coastal soils. Revised fertilizer recommendations will be included in the next issue of Extension's *Florida Lawn Handbook* that is soon to be published.

Question of the Week: I would like to plant some of the new Coleus varieties that are being offered at local nurseries. Any suggestions on how to grow them?

Answer: By all means, try some of the new Coleus cultivars. They are very colorful, last all summer and will thrive during the upcoming hot, wet season. They respond well to light monthly pruning and fertilization. This keeps them vigorous and discourages flowering - which you don't want to happen with Coleus. It's the colorful leaves, not flowers, that make them so attractive.